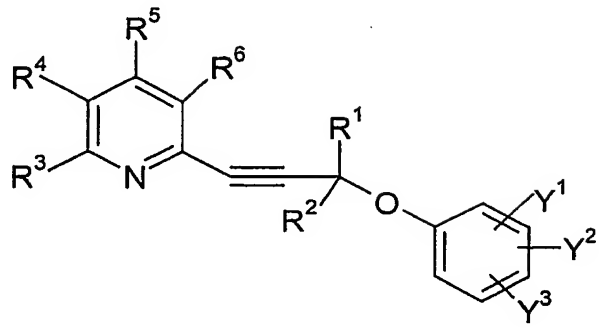
Claims

1. A compound of formula I



(I)

wherein

R^1 is selected from hydrogen, C_1-C_4 alkyl, C_3-C_6 cycloalkyl, aryl and heteroaryl, wherein the aryl or heteroaryl may be substituted by C_1-C_4 alkyl;

R^2 is selected from hydrogen and C_1-C_4 alkyl;

R^3 is selected from hydrogen, C_1-C_4 alkyl, F, CF_3, CHF_2 and CH_2F;

R^4 is selected from hydrogen, F, CF_3, CHF_2, CH_2F and CH_3;

R^5 is selected from hydrogen and F;

R^6 is selected from hydrogen and F;

Y^1 is selected from hydrogen; halogen; nitrile; C_1-C_4 alkoxy; C_1-C_4 alkyl wherein one or more of the hydrogen atoms of the alkyl group may be substituted for a fluorine atom; benzyloxy; nitro in the meta or para position; and C_1-C_4 alkyl ester;

Y^2 is selected from hydrogen; halogen; nitrile; C_1-C_4 alkoxy; C_1-C_4 alkyl wherein one or more of the hydrogen atoms of the alkyl group may be substituted for a fluorine atom; and C_1-C_4 alkyl ester;

Y^3 is selected from hydrogen; halogen; nitrile; C_1-C_4 alkoxy; C_1-C_4 alkyl wherein one or more of the hydrogen atoms of the alkyl group may be substituted for a fluorine atom; and C_1-C_4 alkyl ester; or

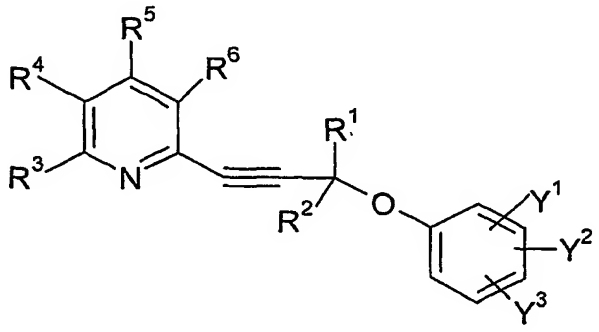
Y^1 and Y^2 may form an aromatic or non-aromatic ring, optionally substituted by halogen, nitrile, C_1-C_4 alkoxy, C_1-C_4 alkyl wherein one or more of the hydrogen

atoms of the alkyl group may be substituted for a fluorine atom, benzyloxy or C_1-C_4 alkyl ester;

with the proviso that when Y^1 is hydrogen, Y^2 is selected from halogen, nitrile, C_1-C_4 alkoxy, and C_1-C_4 alkyl;

as well as pharmaceutically acceptable salts, hydrates, isoforms and/or optical isomers thereof.

2. A compound of formula I



(I)

wherein

R^1 is selected from hydrogen, C_1-C_4 alkyl, C_3-C_6 cycloalkyl, aryl and heteroaryl, wherein the aryl or heteroaryl may be substituted by C_1-C_4 alkyl;

R^2 is selected from hydrogen and C_1-C_4 alkyl;

R^3 is selected from hydrogen, C_1-C_4 alkyl, F, CF_3, CHF_2 and CH_2F;

R^4 is selected from hydrogen, F, CF_3, CHF_2, CH_2F and CH_3;

R^5 is selected from hydrogen and F;

R^6 is selected from hydrogen and F;

Y^1 is selected from hydrogen, halogen, nitrile, C_1-C_4 alkoxy, and C_1-C_4 alkyl;

Y^2 is selected from hydrogen, halogen, nitrile, C_1-C_4 alkoxy, and C_1-C_4 alkyl;

Y^3 is selected from hydrogen, halogen, nitrile, C_1-C_4 alkoxy, and C_1-C_4 alkyl;

with the proviso that when Y^1 is hydrogen, Y^2 is selected from halogen, nitrile, C_1-C_4 alkoxy, and C_1-C_4 alkyl;

as well as pharmaceutically acceptable salts, hydrates, isoforms and/or optical isomers thereof.

3. A compound according to formula I of claim 1 or 2, wherein
R^1 is hydrogen or C_1-C_3 alkyl;
R^2 is hydrogen;
R^3 is selected from hydrogen and C_1-C_2 alkyl;
R^4 is hydrogen;
R^5 is hydrogen;
R^6 is hydrogen;
Y^1 is selected from hydrogen, chloro, C_1-C_2 alkoxy, and C_1-C_2 alkyl; and
Y^2 is selected from hydrogen, chloro, C_1-C_2 alkoxy, and C_1-C_2 alkyl;
with the proviso that when Y^1 is hydrogen, Y^2 is selected from chloro, C_1-C_2 alkoxy, and C_1-C_2 alkyl; and
Y^3 is hydrogen.

4. A compound according to claim 1 selected from;
2-[3-(3-methoxyphenoxy)prop-1-yn-1-yl]-6-methylpyridine;
2-[3-(3-methoxyphenoxy)prop-1-yn-1-yl]pyridine;
2-[3-(3-chlorophenoxy)but-1-yn-1-yl]-6-methylpyridine;
2-Methyl-6- (3-p-tolyloxy-prop-1-ynyl)-pyridine;
2-[3-(2,3-Dichloro-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,3-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,3-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,4-Dichloro-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,4-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,5-Dichloro-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,5-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-[3-(2,6-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;
2-Methyl-6- [3-(2-trifluoromethyl-phenoxy)-prop-1-ynyl]-pyridine;

2-[3-(2-Benzyloxy-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(2-Bromo-4, 5-dimethyl-phenoxy) -prop-1-ynyl]-6-methyl-pyridine;

2-[3-(2-Chloro-4-methoxy-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(2-Chloro-5-methyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(2-Chloro-6-methyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-Methyl-6- (3-o-tolyloxy-prop-1-ynyl)-pyridine;

2-Methyl-6- [3-(3,4,5-trimethyl-phenoxy)-prop-1-ynyl]-pyridine;

2-[3-(3,4-Dichloro-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3,4-Dimethoxy-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3,4-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3,5-Dichloro-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3,5-Dimethoxy-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3,5-Dimethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-[3-(3-Bromo-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

3- [3- (6-Methyl-pyridin-2-yl)-prop-2-ynyloxy]-benzonitrile;

2-[3-(3-Ethyl-phenoxy)-prop-1-ynyl]-6-methyl-pyridine;

2-methyl-6-[3-(3-methylphenoxy)prop-1-yn-1-yl]pyridine;

2-[3-(4-chloro-2-methylphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-[3-(4-chloro-3,5-dimethylphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-[3-(4-chloro-3-methylphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-[3-(4-chlorophenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-[3-(4-methoxyphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-methyl-6-[3-(4-nitrophenoxy)prop-1-yn-1-yl]pyridine;

2-methyl-6-[3-(3-nitrophenoxy)prop-1-yn-1-yl]pyridine;

2-methyl-6-[3-(3-methylphenoxy)prop-1-yn-1-yl]pyridine;

2-methyl-6-[3-(5,6,7,8-tetrahydronaphthalen-2-yloxy)prop-1-yn-1-yl]pyridine;

2-[3-(4-isopropylphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

2-[3-(4-*tert*-butylphenoxy)prop-1-yn-1-yl]-6-methylpyridine;

6-[3-(3,4-dimethylphenoxy)prop-1-yn-1-yl]-3-fluoro-2-methylpyridine; and

6-[3-(3,4-dimethylphenoxy)but-1-yn-1-yl]-3-fluoro-2-methylpyridine.

5. A compound according to any one of claims 1-4 for use in therapy.

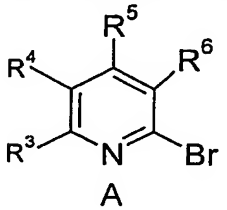
6. A compound according to claim 5, wherein the therapy is treatment or prevention of gastroesophageal reflux disease.

7. Use of a compound according to formula I of claim 1 or 2, or a pharmaceutically acceptable salt or an optical isomer thereof, for the manufacture of a medicament for the inhibition of transient lower esophageal sphincter relaxations.

8. Use of a compound according to formula I of claim 1 or 2, or a pharmaceutically acceptable salt or an optical isomer thereof, for the manufacture of a medicament for treatment or prevention of gastroesophageal reflux disease.

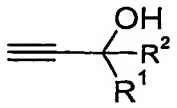
9. A pharmaceutical composition comprising a compound of formula I of claim 1 or 2 as an active ingredient, together with a pharmacologically and pharmaceutically acceptable carrier.

10. A process for the preparation of a compound of formula I, whereby a coupling reaction of the aryl bromide A



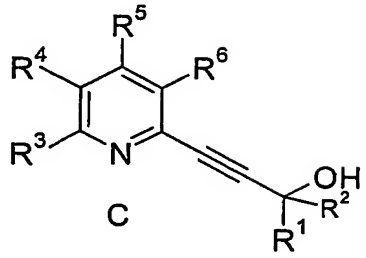
A

and the alcohol B



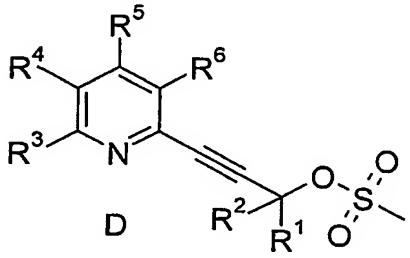
B

is performed in the presence of a base such as triethyl amine to give the alcohol C



C

which is then converted into the mesylate D



D

and reacted with an alcohol, and wherein

R^1 is selected from hydrogen, C_1-C_4 alkyl, C_3-C_6 cycloalkyl, aryl and heteroaryl, wherein the aryl or heteroaryl may be substituted by C_1-C_4 alkyl;

R^2 is selected from hydrogen and C_1-C_4 alkyl;

R^3 is selected from hydrogen, C_1-C_4 alkyl, F, CF_3, CHF_2 and CH_2F;

R^4 is selected from hydrogen, F, CF_3, CHF_2, CH_2F and CH_3;

R^5 is selected from hydrogen and F;

R^6 is selected from hydrogen and F.

11. A compound selected from 3-(5-fluoro-6-methylpyridin-2-yl)prop-2-yn-1-ol; 4-(5-fluoro-6-methylpyridin-2-yl)but-3-yn-2-ol; 3-(5-fluoro-6-methylpyridin-2-yl)prop-2-yn-1-yl methanesulfonate; 3-(5-fluoro-6-methylpyridin-2-yl)-1-methylprop-2-yn-1-yl methanesulfonate; 4-(6-methylpyridin-2-yl)but-3-yn-2-ol; and Methanesulfonic acid 1-methyl-3-(6-methyl-pyridin-2-yl)-prop-2-ynyl ester.

12. A method for the inhibition of transient lower esophageal sphincter relaxations whereby an effective amount of a compound of formula I of claim 1 or 2 is administered to a subject in need of such inhibition.

13. A method for the treatment or prevention of gastroesophageal reflux disease, whereby an effective amount of a compound of formula I of claim 1 or 2 is administered to a subject in need of such treatment or prevention.